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Tuberculosis Disease

Overview

For a more complete description of Tuberculosis disease refer to the following texts:

- Control of Communicable Disease Manual (CCDM).
- Red Book, Report of the Committee on Infectious Diseases.
- Core Curriculum on Tuberculosis What the Clinician Should Know, Fourth Edition 2000
- American Thoracic Society/Centers for Disease Control and Prevention/Infectious Diseases Society of America: Treatment of Tuberculosis

Case Definition

Clinical Description

A chronic bacterial infection caused by *Mycobacterium tuberculosis*, characterized pathologically by the formation of granulomas. The most common site of infection is the lung, but other organs may be involved.


Clinical case definition

A case that meets the following criteria:

- A positive tuberculin skin test
- Other signs and symptoms compatible with tuberculosis (e.g., an abnormal, unstable [i.e., worsening or improving] chest radiographs, or clinical evidence of current disease)
- Treatment with two or more anti-tuberculosis medications
- Completed diagnostic evaluation

Laboratory criteria for diagnosis

- Isolation of *M. tuberculosis* from a clinical specimen* or
- Demonstration of *M. tuberculosis* from a clinical specimen by nucleic acid amplification test, or
- Demonstration of acid-fast bacilli in a clinical specimen when a culture has not been or cannot be obtained

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Case classification

<u>CLASS</u>	<u>TYPE</u>	<u>DESCRIPTION</u>
0	No TB exposure Not infected	No history of exposure Negative reaction to tuberculin skin test
1	TB exposure No evidence of Infection	History of exposure Negative reaction to tuberculin skin test
2	TB infection No disease	Positive reaction to tuberculin skin test Negative bacteriologic studies (if done) No clinical, bacteriological, or Radiographic evidence of active TB
3	TB, clinically active	<i>M. tuberculosis</i> cultured (if done) Clinical, bacteriological, or Radiographic evidence of TB
4	TB	History of episode(s) of TB or Abnormal but stable radiographic findings Positive reaction to tuberculin skin test Negative bacteriologic studies (if done) and No clinical radiographic evidence of Current disease
5	TB suspected	Diagnosis pending


Comments:

CDC counts clinical cases of tuberculosis as a case if the criteria are met.

Tuberculosis Disease is currently not reportable to CDC through MOHSIS.

Case/Contact Follow Up and Control Measures

- A person suspected of having tuberculosis of the throat or lungs should be isolated either in their home or in the hospital until they have met the following criteria: 2 weeks of treatment, 3 negative smears, and are clinically improving.

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- All close contacts should receive a tuberculin PPD skin test as soon as possible and if the skin test is 0mm the test should be repeated again in three months. For more in-depth information on contact follow up and control measures refer to the Core Curriculum on Tuberculosis, and the Tuberculosis Control Manual, section 4.0

Laboratory Procedures

- See section 3.0 in the Tuberculosis Control Manual

SMEARS:

None seen	Negative
10-30 per slide	1+; Rare
31-100 per slide	2+; Few
1-9/field	3+; Many
>9/field	4+[ml]; numerous


CULTURES:

<u>Result</u>	<u>Interpretation</u>
Smear -, culture -	None to few bacilli present, nonviable
Smear -, culture +	Few bacilli present, but viable
Smear +, culture -	Bacilli present, but non-viable or not recovered
Smear +, culture +	Confirmed recovery of Mycobacteria, identification required

Reporting Requirements

Tuberculosis disease is a Category I disease and shall be reported to the local health authority or to the Missouri Department of Health and Senior Services (DHSS) within 24 hours of first knowledge or suspicion.

1. For suspected or confirmed cases of tuberculosis disease complete a "Disease Case Report" (CD-1).
2. Contact investigation information should be submitted to the person your county reports to at the state/region as soon as the initial investigation is completed and when the three-month investigation is completed on a Tuberculosis Worksheet for Contacts of Newly Diagnosed Cases of TB (TBC-13).
3. Tuberculosis History (TBC-10) should be submitted for all laboratory confirmed or clinical cases of tuberculosis.
4. All outbreaks or "suspected" outbreaks must be reported as soon as possible (by phone, fax, or e-mail) to the Regional Communicable Disease Coordinator. This can be accomplished by completing the Missouri Outbreak Surveillance Report (CD-51).
5. Within 90 days of the conclusion of an outbreak, submit the final outbreak report to the Regional Communicable Disease Coordinator.

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References

1. American Academy of Pediatrics. "Tuberculosis." In: Pickering LK, ed. 2000 Red Book: Report of the committee on Infectious Diseases. 25th ed. Elk Grove village, IL. 2000:593-613.
2. Chin, James, ed "Tuberculosis." Control of Communicable Disease Manual. 17th ed. Washington, DC: American Public Health Association, 2000: 521-532.
3. Centers for Disease Control and Prevention. Core Curriculum on Tuberculosis, What the Clinician Should Know. 4th ed., 2000.
4. American Thoracic Society Documents. American Thoracic Society/Centers for Disease Control and Prevention/Infectious Diseases Society of America: Treatment of Tuberculosis, October 2002.
5. Missouri Department of Health and Senior Services. Tuberculosis Case Management Manual. Revised annually.

Web Sites:

1. Centers for Disease Control and Prevention, Division of Tuberculosis Elimination www.cdc.gov/nchstp/tb/ (June 2003).
2. American Thoracic Society/Centers for Disease Control and Prevention/Infectious Diseases Society of America: Treatment of Tuberculosis <http://www.thoracic.org/adobe/statements/treattb.pdf> (June 2003).
3. Missouri Department of Health and Senior Services' Tuberculosis Control Manual <http://www.dhss.state.mo.us/TBManual/index.pdf> (June 2003).
4. Francis J. Curry National Tuberculosis Center <http://www.nationaltbcenter.edu/> (June 2003).
5. Charles P. Felton National Tuberculosis Center at Harlem Hospital <http://www.harlemtbcenter.org/> (June 2003).
6. New Jersey Medical School National Tuberculosis Center <http://www.umdnj.edu/ntbcweb/tbsplash.html> (June 2003).